

Application No.: 10/500,367

Docket No.: 22106-00062-US1

AMENDMENTS TO THE DRAWINGS

The attached drawing sheet includes new Figure 2, showing a connection element 2a in the form of a connecting braid.

Attachment: New drawing sheet

Application No.: 10/500,367

Docket No.: 22106-00062-US1

REMARKS

Claims 1-3 and 5-20 are pending. Claim 4 is canceled. Claims 1-3, 5-7 and 9-20 are amended.

Claim Amendments

Claims 1-3, 5-7 and 9-20 have been amended to improve readability and to correct informalities. No new matter has been added.

Amendments to the Specification

The specification has been amended to make appropriate reference to new Figure 2, and to include proper headings. No new matter has been added.

Drawing Amendments

The drawings have been amended to include new Figure 2. Figure 2 shows an alternate embodiment in which a connection member 2a is a connecting braid. Support for this figure is found, for example, in the original specification on page 5, lines 13-20. Applicant submits that no new matter has been added.

Objection to the Drawings

Applicant respectfully requests reconsideration and withdrawal of the objection to the drawings for failure to show all claimed subject matter. The Examiner objected to the drawings for failing to show that the "predefined path follows one or more mixed, open or closed lines, also in the variation of parallel repetitions." Claim 4 has been canceled, thus obviating the need to show each possible path indicated by the language objected to in claim 4. The Examiner also objected to the drawings for failing to show a "connecting braid." New Figure 2 shows an alternate embodiment including a connection element 2a in the form of a connecting braid.

Application No.: 10/500,367

Docket No.: 22106-00062-US1

Claim Rejections - 35 U.S.C. §112

Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 4 as being indefinite under 35 U.S.C. §112, second paragraph. The Examiner stated that the language "predefined path follows one or more mixed, open or closed lines, also in the variation of parallel repetitions" is unclear. Applicant respectfully disagrees. However, in order to expedite prosecution, Applicant has canceled claim 4, thus rendering the rejection moot.

Claim Rejections - 35 U.S.C. §102

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 5, 6, 8 and 9 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,276,298 to Jones et al. (Jones '298).

The invention of claim 1 relates to a method for joining components of thermoplastic systems and thermal relays for low voltage circuit breakers. The components recited in the claimed method comprise at least one bimetallic element with a first face and a second face, and at least one connection element that has a substantially flat end part with a third face and a fourth face. The method comprises:

overlapping and coupling the end part of the first face of said bimetallic element with respect to the third face of the end part of said connection element; and

subjecting the end part of the second face of said bimetallic element to the welding action of laser means to provide a weld between said bimetallic element and said connection element. (emphasis added)

As is clearly indicated in the specification, (see page 4, lines 10-24), the welding between the components is therefore performed by laser means (50) which scan the second face (20) of the bimetallic element (1) so as to weld together the components (1,2) in proximity of the first face (10) of the bimetallic element (1) and of the third face (30) of the connection element (2). Particularly, the welding can be performed by relative movement of the laser means with respect

Application No.: 10/500,367

Docket No.: 22106-00062-US1

to the components (1,2). By performing their action on the flat first surface (20), the laser means can follow predefined paths which can be curved, straight or paths that include alternating curved and straight portions.

The method disclosed in Jones '298 includes overlapping the end parts of the bimetallic element (6) with a connection element (4) and braid extensions (8). Subsequently, the subassembly thus formed is moved past laser beams (10) along a specific direction (X) so as to perform a first edge weld (18) between the bimetallic element (6) and the connection element (4). As clearly shown in Figure 1 of Jones, the laser beams (10) act laterally on the bimetallic element (6) for performing the edge welds (18,20). This is contrary to the claimed method, in which the laser means act on a surface of the bimetallic element. That is, in Jones'298, the laser beams weld the bimetallic element and the connection element together in proximity of their relative borders and not in proximity of their overlapped surfaces. Furthermore, the Jones '298 requires the laser beams to follow a straight path to perform the edge welds since the available material for welding is limited, whereas the claimed method allows for a variety of different welding paths due to the larger surface available for welding.

For the reasons provided above, Jones '298 does not anticipate claims 1, 5, 6, 8 and 9.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 2, 4-6, 8-10, 12, 15 and 16 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,268,555 to Jones et al. (Jones '555). Jones '555 also fails to teach the claimed method because the laser beams disclosed therein do not act on the surface of the bimetallic element, but substantially on the edges of the bimetallic element to perform weld seams between the edges of the bimetallic element and the surface of the connection element.

Claim Rejections - 35 U.S.C. §103

Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3, 11 and 14 under 35 U.S.C. §102(b) as being unpatentable over Jones '555 in view of Matsubara et al. (JP 54-116,356).

Application No.: 10/500,367

Docket No.: 22106-00062-US1

Jones '555 fails to teach or suggest the method of claim 1 for the reasons set forth above. Matsubara also fails to teach the elements of the claimed method that are missing from Jones '555. Claims 3, 11 and 14 are therefore allowable over Jones '555 and Matsubara et al.

Allowable Subject Matter

Applicant thanks the Examiner for the indication of allowable subject matter in claims 7 and 17-20.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: July 25, 2005

Respectfully submitted,

By 

Brian J. Hairston

Registration No.: 46,750

CONNOLLY BOVE LODGE & HUTZ LLP

1990 M Street, N.W., Suite 800

Washington, DC 20036-3425

(202) 331-7111

(202) 293-6229 (Fax)

Attorney for Applicant

Attachments